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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,930	04/13/2004	Andrew Long	KCC 4994 (K-C 20,135)	4434
321	7590	05/05/2005	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			HILL, LAURA C	
			ART UNIT	PAPER NUMBER
			3761	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER
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ART UNIT	PAPER
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20050428

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Commissioner for Patents

## Office Action Summary

Application No.

10/822,930

Applicant(s)

LONG ET AL.

Examiner

Laura C. Hill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-15, 30-31, 46-47 is/are allowed.
- 6) ☒ Claim(s) 1-13, 16-29, 32-45 and 48-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 11, 17, 20 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Ahr et al. (US 5,997,520). With regard to claims 1, 17 and 20, the Ahr et al. reference discloses absorbent article having a liquid pervious top sheet 38, liquid impervious back sheet 42, absorbent core 44, and an expandable component 210 (col. 4, ll. 50-col. 5, line 1). The Ahr et al. reference further discloses first material 300/gas-generating system and second activating materials 400/ surfactant as a means for the expanding component and a means for combining the materials to expand the spacer 210/inflatable envelope to a greater second thickness T2 yielding carbon dioxide when wetted (col. 5, ll. 14-18 and col. 11, ll. 32-38). With regard to claim 2, the Ahr et al. reference discloses first material 300/ gas-generating system that is a combination of bicarbonate/base and a powered acid (col. 11, ll. 34-37). With regard to claims 11 and 27, the Ahr et al. reference discloses envelope 290, containing aforementioned gas-generating system, which is formed from a spunbond hydrophobic nonwoven (col. 12, ll. 39-41).

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2. Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by Glaug et al. (US 5,649,914). The Glaug et al. reference discloses toilet training aid 24 that creates a distinct feeling during urination with a temperature and dimensional change upon contact with an aqueous solution such as urine (col. 4, ll. 24-27). The Glaug et al. reference further discloses pad 50 with casing 52 which includes wet sensation layer 56 and support layer 58 with temperature change member 54 sandwiched within the casing between the wet sensation and support layers (col. 5, ll. 24-28).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 3-10, 12-13, 16, 22-26, 28-29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahr et al. as applied to claims 2 and 17 (US

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5,997,520). With regard to claims 3-4, the Ahr et al. reference discloses carbon dioxide-generating element previously discussed in claim 1 with first gas-evolving material 300 that is a combination of bicarbonate/base and a powered acid (col. 11, ll. 34-37). Even though the Ahr et al. reference does not disclose potassium bitartrate and sodium aluminum sulfate acids, it would be obvious to one skilled in the art to use any combination of acid and base which would generate carbon dioxide since the Ahr et al. absorbent article generates a carbon dioxide sensation for the user.

With regard to claim 5, the Ahr et al. reference discloses that gas evolving material 300 can be disposed in a hydrophobic envelope and therefore it would be obvious that at least the acid and base that comprise the gas-evolving material would be encapsulated as claimed (col. 2, ll. 64-65-col. 3, line 3).

With regard to claims 6-10 and 22-26, the Ahr et al. reference discloses second activating material 400 that can be water or other activating material such as a surfactant (col. 12, ll. 1-2). It would be obvious to one skilled in the art to choose the listed anionic, nonionic, amphoteric, and cationic surfactants from the groups claimed since the Ahr et al. reference contains the aforementioned activating material which could function to interact with gas to form foam as applied to claim 1 and 17 discussed above.

With regard to claims 12 and 28, the Ahr et al. reference discloses spacer 210 with activating materials within envelope 290 that is joined/attached to upper core layer 44U of absorbent core 44 as applied to claims 1 and 17 as previously discussed (col. 13, line 40 and fig. 3).

With regard to claims 13 and 29, the Ahr et al. reference discloses first material 300 which is joined to absorbent core as previously discussed and can comprise super absorbent polymers which swell or expand upon being wetted (col. 16, ll. 34-37). It would be obvious from the teachings of Ahr et al. to use super absorbent particles since it is well known that super absorbent particles assist in absorption of urine into an absorbent core in personal care absorbent articles.

With regard to claims 16 and 32, the Ahr et al. reference discloses amounts of citric acid and potassium bicarbonate to be 0.0172 and 0.0179 g respectively in incorporation by reference, US 3,881,491. Although these amounts do not fall within the ranges claimed, it would be obvious that these ranges are capable of producing the desirable amount of bubbles and foam specified from the disclosure of Ahr et al. as applied to aforementioned claims 2 and 17. If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

4. Claims 1-2, 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slavtcheff et al. (WO 01/56542 A1). With regard to claims 1-2 and 17, the Slavtcheff et al. reference discloses sensory-imparting pleated sachet with effervescent cleanser composition 12 placed within pouch 10/envelope to allow gaseous expansion and generating CO<sub>2</sub> when contacted with water (pg. 6, line 23 pg. 7, ll. 16-17 and pg. 8, ll. 19-21). The Slavtcheff et al. reference further discloses that effervescence composition which is a combination of an alkaline/base and acid /gas-forming system and a surfactant (pg. 8, ll. 15-16 and pg. 10, ll. 10-11). Slavtcheff et al. does not

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expressly disclose a bodyside liner and absorbent core layer. It would be obvious to combine the gas-forming system and surfactant teachings of Slavtcheff et al. with absorbent article liner and core layers to yield an absorbent article with expanding properties since Slavtcheff et al. discloses a sensory-imparting sachet/inflatable envelope capable of generating gas when contacted with liquid.

With regard to claim 16, the Slavtcheff et al. reference discloses base amount of 25-35% and acid amount 20-45% by weight of total effervescent composition (pg. 8, ll. 24-25 and pg. 9, ll. 12-13 and 25). Even though the Slavtcheff et al. reference does not disclose amount of surfactant necessary, it would be obvious to select a range, which would produce the desired amount of bubbles and foam since the acid and base amounts are disclosed.

With regard to claims 18 and 21, the Slavtcheff et al. reference discloses aforementioned pouch 10/ envelope that may contain solid materials such as sugars, starches, sorbitol which assist in depositing skin benefit agents onto the skin surface (pg. 16, ll. 8-16). Although the solid materials are not the encapsulated effervescent material claimed but rather are deposited into the base to achieve a dry-flowing powder (pg. 10, ll. 26-27), it would be obvious to one skilled in the art to add this solid material from the solid material teachings of Slavtcheff et al in order to form pressurized gas as claimed.

5. Claims 34-45 and 48-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glaug et al. ('914) as applied to claim 33 in view of Ahr et al. ('520).

With regard to claims 34-42 and 48-53, the Glaug et al. reference discloses toilet



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training aid 24 that creates a distinct feeling during urination with a temperature and dimensional change upon contact with an aqueous solution such as urine as applied to claim 33 discussed above. It would be obvious to one skilled in the art to combine the temperature change agent of Glaug et al. with the gas-system and surfactant of Ahr et al. to form an absorbent article with both components and also select acid, base and surfactants from the groups claimed since both Glaug et al. and Ahr et al. teach expanding absorbent articles with wetness indicators useful for toilet training.

With regard to claims 43-45, the Glaug et al. reference discloses wet sensation layer 56 of temperature change agent aforementioned in claim 33 which is located on top of absorbent core and is a spunbond web containing super absorbent fibers (col. 7, ll. 28-29 and ll. 43-47 and fig. 2). It would be obvious to one skilled in the art to combine the envelope contained within absorbent core teachings of Ahr et al. with the temperature change agent of the Glaug et al. reference to yield an absorbent article with the claimed characteristics since both teach carbon dioxide-releasing elements.

### ***Claim Objections***

6. Claims 14-15, 30-31 and 46-47 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The art of record fails to show location and/or placement of super absorbent particles in relation to the position of the inflatable envelope.

### ***Response to Arguments***

Applicant's arguments filed 28 March 2005 have been fully considered but they are not persuasive.

7. In response to applicant's arguments concerning rejection of claims 1-2, 11, 17, 20 and 27 by Ahr et al. (US 5,997,520) under 35 U.S.C. 102(b), Applicant argues that 'Ahr et al. fails to disclose a **urine-permeable inflatable envelope** comprising a **surfactant** and a system capable of generating carbon dioxide upon **being wetted with urine** as required by claim 1' (Remarks, page 2). In response to Applicant's argument that the second activating material of Ahr et al. has been incorrectly equated with the surfactant of instant claim 1 since the surfactant of the present invention is present as a **foaming agent**, applicant misinterprets the principle that claims are interpreted in light of the specification. Although the foaming agent elements are found as examples or embodiments of the surfactant in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms. *Constant*

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*v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Furthermore, Ahr et al. discloses first material 300/gas-generating system that interacts with second activating materials 400/surfactant as a means for expanding the spacer/inflatable envelope 210 to a greater second thickness T2 yielding carbon dioxide when wetted by user as discussed in rejected claim 1, said gas-generating system would inherently contain bubbles which inflate the envelope and cause it to swell and push against the skin of the wearer since gases contain bubbles that expand.

8. In response to Applicant's arguments concerning rejection of claim 33 by Glaug et al. (US 5,649,9140) under 35 U.S.C. 102(b), Applicant argues that 'Glaug et al. fails to disclose an inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine' (Remarks, page 5). Examiner maintains the rejection of claim 33 as discussed above since Glaug et al. discloses training aid 22 has a temperature change, retention of moisture or a *dimensional change upon contact* with an aqueous solution such as *urine*. Furthermore Examiner maintains that the Glaug et al. training aid is capable of generating carbon dioxide when wetted since the temperature change substances 64 that absorb heat includes an acid such as sodium sulfate and a base such as sodium carbonate that are capable of reacting together to generate carbon dioxide (col. 9, ll. 42-45).

9. In response to Applicant's arguments concerning rejection of claims 3-10, 12-13, 16, 22-26, 28-29 and 32 by Ahr et al. (US 5,649,9140) under 35 U.S.C. 103(a), examiner maintains that Ahr et al. discloses a urine-permeable inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being

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wetted with urine as required by independent claims 1 and 17. Furthermore, Examiner points out that wearer breaks packet 500 at point of use/upon being wetted with urine to combine the first gas-evolving material 300 with the second activating material/surfactant 400 capable of generating a gas (col. 5, ll. 27-34).

10. In response to Applicant's arguments concerning rejection of claims 1-2 and 16-21 by Slavtcheff et al. (WO 01/56542) under 35 U.S.C. 103(a), Applicant argues that 'Slavtcheff et al. fails to disclose a core and a urine-permeable inflatable envelope located between the bodyside liner and the absorbent core and comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine' (page 8). Examiner maintains that Slavtcheff et al. discloses a urine-permeable inflatable envelope comprising a surfactant and a system capable of generating carbon dioxide upon being wetted with urine as required by independent claims 1 and 17 since Slavtcheff et al. discloses sensory-imparting pleated sachet with effervescent cleanser composition 12 placed within pouch 10/envelope to allow gaseous expansion and generating CO<sub>2</sub> when contacted with water as discussed in rejected claims 1 and 17 above. Furthermore, Slavtcheff et al. discloses the nonwoven sachet/ inflatable envelope 2 can be formed of a first water permeable flexible wall 4 and a second rigid wall 6 and that suitable materials for forming the first and second walls are polyester, polyethylene, cotton and other materials used in absorbent products (page 6, ll. 23-32, page 7, ll. 8-9, page 18, ll. 30-31). Even though Slavtcheff et al. does not expressly disclose the absorbent core and bodyside liner, examiner maintains that it would be

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obvious to modify the Slavtcheff et al. sensory-imparting sachet with these layers since Slavtcheff et al. discloses sachet/inflatable envelope can be formed of distinct walls.

11. In response to Applicant's argument that there is no suggestion to modify the Slavtcheff et al. reference to arrive at Applicant's invention, Applicant misinterprets the principle that claims are interpreted in the light of the specification. Although the surfactant and system capable of generating carbon dioxide contained within the inflatable envelope are found as examples or embodiments in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to give meaning to disputed terms. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Therefore the Examiner maintains that according to the broad claim language the surfactant and system capable of generating carbon dioxide of Slavtcheff et al. comprise a part of the envelope in some location but these elements are not necessarily contained within the inflatable envelope.

12. In response to Applicant's arguments concerning rejection of claims 34-45 and 48-53 by Glaug et al. in view of Ahr et al. under 35 U.S.C. 103(a), Applicant argues that the combination of references made was improper since Ahr et al. is not directed to a toilet training aid and since 'one skilled in the art would not look to Ahr et al. for possible combination with the toilet training pad of Glaug et al.' (Remarks, page 11). Examiner agrees with Applicant that Ahr et al. provides a seal for reducing leakage of body exudates from between the article and the wearer's skin but also maintains that the

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absorbent article is capable of sending a sending a noticeable sensation to user upon expansion since there is a dimensional change of the gas-evolving material when wetted (col. 2, ll. 55-59). If a prior art structure is capable of performing the intended use as recited in the preamble, then it meets the claim. See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

13. Applicant further argues that one 'would not and could not be motivated to combine the composition in Glaug et al. with the absorbent article of Ahr et al.' since the toilet training pad of Glaug et al. is desirably liquid-permeable (Remarks, pages 11 and 12). Although one aspect of the invention calls for a liquid-permeable wet sensation layer 56, support layer 58 and temperature change member 54, Glaug et al. has first and second containment layers 66 which form pockets 68, said pockets containing temperature change particles 64 (col. 12, ll. 36-40). Examiner maintains that the containment layers of Glaug et al. would provide at least some level of absorbency and could therefore be combined with the Ahr et al. reference. Furthermore, in response to Applicant's argument that one 'would not and could not be motivated to combine the composition in Glaug et al. with the absorbent article of Ahr et al.', it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). *In re Paulsen*, 30 F. 3d 1475. 3145PQ 2d 1671 (Fed. Cir. 1994).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Angelillo et al. reference, US patent no. 5,277,180, is cited for showing a tampon that expands by mixing citric acid with sodium bicarbonate to produce carbon dioxide and the gas generates a stable foam upon release. The Underhill et al. reference, US patent no. 6,657,100, is cited for showing toilet training pad with a microencapsulated astringent agent to provide tingling sensation upon urination.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Hill whose telephone number is 571-272-7137. The examiner can normally be reached Monday through Friday (off every other Friday).

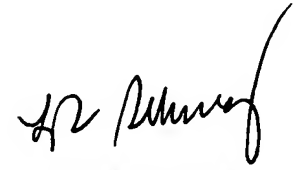
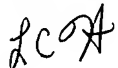
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Schwartz can be reached on 571-272-4390. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura C. Hill  
Examiner  
Art Unit 3761

LCH



Larry I. Schwartz  
Supervisory Patent Examiner  
Group 3700